Amphibolin E.L.F.

Emission-minimised, solvent-free, universal paint of the latest generation. For exterior and interior use.

Product Description

Field of Application

Multipurpose, emission-minimised and solvent-free exterior and interior paint with outstanding adhesive strength on nearly all substrates. The special formula reduces the writing effect for tinted paint coatings.

Suitable for weather-resistant exterior coatings on even and finely textured substrates, providing higher protection against aggressive air pollutants.
Universal façade paint for application on mineral renders/plasters of mortar groups PII and PIII, concrete, fair-faced brick masonry, fibre-cement boards, sound existing coats of paint, galvanised surfaces, unplasticized (rigid) PVC and wooden parts of unstable shape.

Heavy-duty, scrub resistant, texture preserving interior paint. Particularly suitable for highly stressed coatings on Capaver glass fibre wall coverings and outstandingly suitable for dimly-lit halls, corridors, staircases, storerooms, workshops and underground car parks, due to a high light reflectance value.

Material Properties

- Emission-minimised, solvent-free, unplasticized.
- Free of fogging-active substances.
- Water-thinnable, ecologically compatible, low odour.
- Weather-resistant.
- Wet scrub resistance class 1 according to DIN EN 13300; < 5 µm at 200 strokes, corresponds to "scrub resistant" according to German standard DIN 53778.
- Opacity (hiding/covering power) class 2, with a spreading rate of 8 m²/litre or 120 ml/m²
- Driving rain resistant, water repellent according to German standard DIN 4108.
- High adhesive strength.
- Non-yellowing.
- Alkali-resistant, hence unsaponifiable.
- Thin film coating, texture preserving.
- Highly cleanable and resistant to aqueous disinfectants and household detergents.
- Easy to apply.
- Contains special pigments with photocatalytic effect.

Material Base / Vehicle

100 % pure acrylate.
Synthetic dispersion/emulsion according to German standard DIN 55945, containing wet-adhesion-promoter to achieve optimum adhesive strength.

Packaging/Package Size

- **Standard Product:**
  2.5 litres, 5 litres and 12.5 litres
- **Airfix:**
  25 litres, 120 litres and 480 litres
- **ColorExpress:**
  1.25 litre, 2.5 litres, 5 litres, 7.5 litres and 12.5 litres

AIRFIX Roll- und spritzfertig

ColorExpress

Emission-minimised · E.L.F. · Solvent-free · Unplasticized

Caparol Farben, Lacke, Bautenschutz GmbH D-64372 Ober-Ramstadt P-BAY26-04309 Hoch Filadungen

Colours

White and “Red Sandstone”

Amphibolin can be tinted with CaparolColor or AVA colourants. Add up to max. 10 % of colourants for application on non-absorbent substrates, e.g. unplasticized (rigid) PVC or galvanised surfaces.
If more than one bucket is manually tinted, all product must be thoroughly mixed before use in order to avoid colour differences.
Quantities of 100 litres or more in individual colour shades may be ordered ready tinted ex factory.

Amphibolin is tintable to all current colour collections via the ColorExpress tinting & mixing machine system. Check tinted product prior to the application to avoid colour deviation. Always use tinted paint of the same batch, when applying on seamless surfaces. Brilliant, intensive colour shades may have a lower opacity (hiding/covering power). It is therefore advisable to apply a first coat in a similar hiding pastel tint, based on white. Possibly a second finishing coat may be necessary.

Colour Resistance according to BFS Data Sheet No. 26:
Class: A
Group: 1 - 3, depending on the colour shade.

Gloss Level

Silk-matt, G_2

Storage

Keep in a cool, but frost-free place.

Technical Data

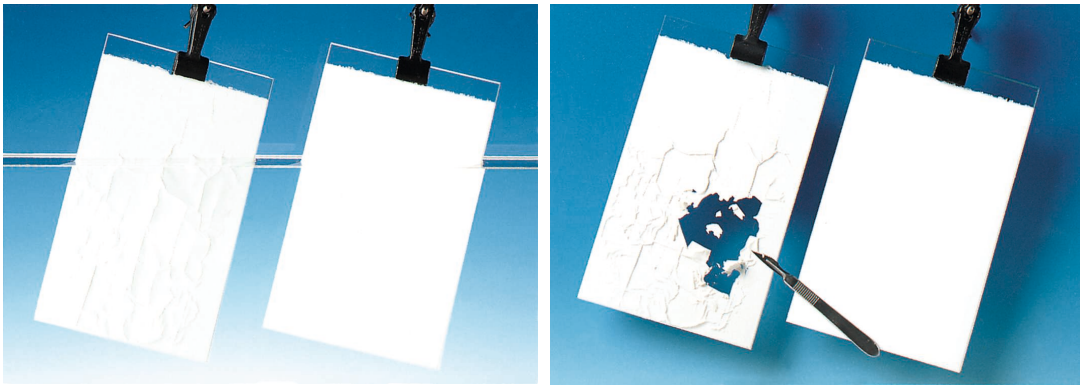
Characteristics according to DIN EN 1062

■ Maximum particle (grit) size:	100 µm, S_1
■ Density:	Approx. 1.4 g/cm³
■ Dry film thickness:	50 - 100 µm, E_2
■ Diffusion-equivalent air layer thickness $s_d CO_2$:	> 50 m, C_1
■ Water permeability (w-value):	≤ 0.1 [kg/(m² · h$^{0.5}$)] (low), W_3
■ Water vapour permeability (sd-value):	≥ 0.14 m to ≤ 1.4 (medium), V_2

Tinting may cause variations.

Note

The "wet adhesion promoter", embedded in Amphibolin as demonstrated in our laboratory test on glass plates, prevents the swelling up of binding agent in extremely moist conditions, so that the coatings are permanently prevented from blistering and flaking.



On the left: Conventional exterior dispersion/emulsion paint, on the right: Amphibolin.

Application

Suitable Substrates

The substrate must be sound/stable, dry, clean, and free from all substances that may prevent good adhesion. In Germany: Follow VOB, part C, DIN 18 363, paragraph 3.

Substrate Preparation

Exterior Surfaces:

Renders/Plasters in Mortar Groups/Classes PII (Lime-Cement Mortars) and PIII (Cement Mortars):
New renders/plasters must be left untreated for a sufficiently long time, normally for 2 weeks at 20 °C and 65% relative humidity. Adverse weather conditions, influenced e.g. by wind or rain, extend the curing process and correspondingly longer holding times must be respected.
The risk of calcareous efflorescence is reduced by an additional priming coat of CapaGrund Universal and the alkaline finishing render/plaster may be coated after a waiting time of 7 days.

Existing renders/plasters: Repairs must have adequate time to cure and dry.
Highly porous, absorbent, slightly sanding renders/plasters: Apply one priming coat of OptiGrund E.L.F. or CapaSol LF. Prime highly sanding, chalking renders/plasters with Dupa-grund.
Coat mineral lightweight renders/plasters of mortar group PII with Sylitol or AmphiSilan products.

Concrete:
Concrete surfaces with deposits of dirt or fines layer must be cleaned, either mechanically or by using high pressure water jet, in compliance with the regulations.
Apply one priming coat (covering undercoating) of Amphibolin, diluted up to max. 5 % with tap water, on slightly absorbent or even surfaces.
Apply one priming coat of OptiGrund E.L.F. or CapaSol LF on highly absorbent surfaces.
Prime chalking substrates with Dupa-grund.

Fibre Cement Boards (with or without Asbestos Fibres):
In Germany: Follow BFS Data Sheet No. 14 and TRGS 519 for coatings on asbestos cement boards. Prime in accordance with Technical Information No. 650. Prime free-standing boards on both sides as well as on all edges. Prime new, highly alkaline fibre-cement boards with Disbon 481 EP-Uniprimer to avoid calcareous efflorescence.

Cement-Bound Wood Chipboards (Particle Boards):
Apply one priming coat of Disbon 481 EP-Uniprimer on highly alkaline boards to avoid calcareous efflorescence.

Sound Coatings of Enamel or Dispersion/Emulsion Paint:
Roughen/sand the surface of glossy coatings or enamels. Wash off existing soiled, chalking layers by high pressure water jet, manually washing or other suitable cleaning method, in compliance with the regulations. Apply one priming coat of Amphibolin, diluted up to max. 5 % with tap (potable) water.

Sound Existing Coatings of Plasto-Elastic Dispersion/Emulsion Paint, e.g. Cap-elast:
Clean soiled, chalking layers by high pressure water jet, manually washing or other suitable method, in compliance with the regulations. Allow substrates to dry well. Apply Amphibolin on such surfaces either exclusively in white or pastel to medium shades (luminosity > 60).

Sound Synthetic Resin-Bound (Organic) Renders/Plasters:
Clean existing renders/plasters by suitable means, e.g. wet cleaning, in compliance with the regulations. Allow surfaces to dry well. Apply one priming coat of Amphibolin, diluted up to max. 5 % with tap (potable) water.

Unsound Coatings of Enamel, Dispersion/Emulsion Paint or Synthetic Resin-Bound (Organic) Render/Plaster:
Remove existing coatings completely by suitable means, e.g. mechanically or with paint stripper.
If paint stripper is used, clean the surface with a high pressure steam jet in compliance with the regulations and allow to dry well.
Apply one priming coat of Amphibolin, diluted up to max. 5 % with tap (potable) water.
Prime highly absorbent, sanding substrates with Dupa-grund.

Unsound Mineral Coatings:
Remove the coating completely by brushing off, scraping off, wet-blasting or other suitable method in compliance with the regulations. Allow the substrate to dry well and prime with Dupa-grund.

Unpainted Wooden Parts of Unstable Shape:
Remove resin galls and exuded resin from new wood/timber. Wash tropical, grease containing wood with nitro thinner. Remove weathered wood layers and coat only sound/stable wood with a limited moisture content: Max. 12 % for hardwood, max. 15 % for coniferous wood (softwood).
Prime with Capalac Holz-Imprägniergrund. If discolouration may occur, an intermediate coat with Capacryl Holz-IsoGrund is essential.

Galvanised Surfaces:
Clean the surface with an ammonia-potash based wetting agent and by corundum plastic fleece. Then wash thoroughly with clean water. In Germany: Follow BFS Data Sheet No. 5.
Apply one priming coat of Amphibolin, diluted max. 5 % with tap (potable) water.
Coloured coatings on galvanised surfaces may cause white efflorescence at higher humidity. In such cases wipe off all efflorescence and apply an additional coat of Amphibolin.

Unplasticized (Rigid) PVC:
Clean thoroughly and slightly sand the surface. Apply one priming coat of Amphibolin, diluted max. 5 % with tap (potable) water. In Germany: Follow BFS Data Sheet No. 22.

Coil Coatings:
Clean the surface with an ammonia-potash based wetting agent. Apply one priming coat of Amphibolin. Note: Silicone containing coil coatings cannot be coated. Always apply a trial coating on site and check for adhesion.

Fair-Faced Brick Masonry:
Only absorbent clinker bricks of frost resistant quality and free of foreign inclusions are suitable for exterior coatings. Masonry must be dry and free of salts/salty efflorescence, jointing must be free of cracks. Apply one priming coat of Amphibolin, diluted up to 5 % with tap (potable) water. If brown discolouration appears on this first coat, then recoat with solvent-based façade paint Duparol.

Surfaces Contaminated with Industrial Emissions or Soot:
Coat with solvent-based façade paint Duparol.

Surfaces with Fungal (Fungi/Mildew/Mould) or Algal Attack:
Coat with the special fungicidal and algicidal façade paint Amphibolin-W.

Cracks in Renders/Plasters or Concrete:
Coat with the crack covering system Cap-elast.

Surfaces with Salty Efflorescence:
Remove salty efflorescence thoroughly with a dry wire brush and prime with Dupa-grund. Coating of such surfaces must be considered a risk for which we cannot accept responsibility (application without guarantee), since even after the most thorough treatment the efflorescence may recur.

Defects:
Repair small defects in mineral substrates with fine filler Caparol-Fassaden-Feinspachtel, deeper damages up to 20 mm preferably with filler Histolith-Renovierspachtel and prime repaired areas subsequently.

Interior Surfaces:

Renders/Plasters in Mortar Groups/Classes PII (Lime-Cement Mortars) and PIII (Cement Mortars):
Solid, normally absorbent renders/plasters can be coated without any pre-treatment.
Prime highly porous, sanding, absorbent renders/plasters with OptiGrund E.L.F. or CapaSol LF.

Gypsum Plasters and Ready-Mixed Gypsum Plasters of Mortar Group PIV / Minimum Compressive Strength according to DIN EN 13279: 1.5 N/mm²:
Sand/grind off the sintered skin and remove all sanding dust. Prime with Caparol-Tiefgrund TB.

Gypsum Wallboards:
Prime absorbent boards with OptiGrund E.L.F. or Caparol-Tiefgrund TB.

Sandwich Type Plaster Boards (Gypsum Plasterboards/Sheetrock/Drywall):
Grind off putty-burrs. Prime and strengthen soft and sanded gypsum areas (repairs) with Caparol-Tiefgrund TB. Boards containing water-soluble and discolouring substances that leave marks must be primed with Caparol AquaSperrgrund. In Germany: Follow BFS Data Sheet No. 12, part 2.

Concrete:
Remove residues of separating agents and chalking (powdery), sanding substances.

Autoclaved Aerated Concrete (AAC)/ Cellular Concrete:
Prime with a 1 : 3 mixture of Capaplex and tap water.

Fair-Faced Brick and Sand-Lime Brick Masonry:
Coat without any pre-treatment.

Sound/Stable Existing Coatings:
Matt, slightly absorbent coatings may be treated without a preliminary preparation. Roughen glossy surfaces and enamel coatings.

Unsound Existing Coatings:
Remove unsound enamels and dispersion (emulsion/latex) paints or synthetic resin-bound renders/plasters. Slightly absorbent, even surfaces can be directly coated. Prime highly porous, sanding or absorbent surfaces with OptiGrund E.L.F. or CapaSol LF. Remove unsound mineral coatings by mechanical means and remove all sanding dust. Then prime with Caparol-Tiefgrund TB.

Distemper Paints / Limewater Colour:
Remove by washing and prime with Caparol-Tiefgrund TB.

Unpainted Woodchip/Ingrain, Relief or Embossed Wallpapers:
Coat without any pre-treatment.

Non-Adherent Wallpapers:
Remove completely. Wash off all residues of wallpaper paste and waste paper. Prime with Caparol-Tiefgrund TB.

Mildewed Surfaces:
Remove coverings of mould by wet cleaning. Then treat the surfaces with Capatox or FungiGrund and allow to dry well. Apply a finishing coat of Indeko-W, Malerit-W or Fungitex-W on badly infested surfaces, in compliance with legal and official regulations (follow e.g. Ordinance on Biological Agents and Ordinance on Hazardous Substances).

Surfaces Stained with Nicotine, Water, Soot or Fat/Grease:
Remove nicotine, soot or fat/grease stains by washing with tap water, adding a grease-dissolving household detergent, then allow the substrate to dry well. Clean dried-up water stains by dry brushing. Apply one insulating coat of Caparol AquaSperrgrund.
Apply one finishing coat of Caparol IsoDeck on highly soiled surfaces.

Wood and Derived Timber Products:
Apply one undiluted priming coat of Amphibolin. Apply one insulating priming coat of Capacryl-Holz-IsoGrund on wood or derived timber products, if discolouration may occur.

Small Defects:
After having completed suitable preparatory work, repair small defects with filler Caparol-Akkordspachtel, following the manufacturers' instructions for processing.
Prime subsequently, if necessary.

Method of Application

Apply with paint brush, roller or spraying equipment. When spraying: Prime slightly absorbent up to non-absorbent substrates with CapaGrund Universal.

Airless application:
Spray angle: 50°
Nozzle size: 0.017" – 0.021"
Spray gun pressure: 150 – 180 bar

Surface Coating System

First or Intermediate Coat:
Apply Amphibolin undiluted or diluted up to max. 5 % with tap (potable) water.

Finishing Coat:
Apply Amphibolin undiluted or diluted up to max. 5 % with tap water. On rough-textured substrates the first or intermediate and finishing coats should be diluted 5 % and spread out well.

Consumption

Approx. 120 ml/m² per coat on an even substrate. On rough-textured surfaces correspondingly more. The exact rate of consumption is best established by a trial coating.

Application Conditions

Lower Temperature Limit for Application and Drying:
+5 °C for product, substrate and ambient air.

Drying/Drying Time

At +20 °C and 65 % relative humidity surface-dry and recoatable after 4 – 6 hours, rain-resistant after 24 hours. Completely dry and ready for stress after approx. 3 days. Lower temperatures and higher humidity extend the drying time.

Tool Cleaning

Clean tools (paint brushes/rollers) and airless equipment immediately after use with tap water.

Note

The product should not be applied in direct sunlight or on sun heated substrates, during strong wind, fog or rain, high relative humidity or imminent rain or frost, etc. To avoid lapping, the paint should be applied wet-on-wet and without interruption. Do not apply on horizontal surfaces exposed to rain or moisture. On rough-textured exterior substrates the use of matt exterior Caparol paints, e.g. Muresko, Amphisil, AmphiSilan or Sylitol façade paint is recommended for aesthetic reason.
Stir and sieve well before airless application.

Due to the use of Caparol-Tiefgrund TB in the interiors, a typical solvent odour is released, hence proper ventilation must be provided during application and drying. Use low aromatic, low odour AmphiSilan-Putzfestiger in sensitive areas.
Façades in special climatic conditions (high degree of moisture) or subjected to a higher influence of atmospheric exposure: It is recommended to apply our special products, e.g. ThermoSan, Amphibolin-W or Duparol-W, provided with special agents delaying the forming of organic growth (fungi & algae).
Mechanical loads on matt façade paints in dark shades may produce bright-toned stripes as a product specific property (no writing resistance).
In case of moist weather conditions (rain, dew, fog) yellowish transparent traces of additives, showing a slightly glossy shine and stickiness, may occur on the surface of compact, cool substrates or by means of delayed drying caused by the weather.
The traces of additives are water-soluble and will disappear under the influence of a sufficient water quantity, e.g. repeated intensive rainfalls. The quality of the dried coating will not be affected by these changes. In case of direct reworking, all traces of additives must be pre-wetted and completely removed after a short reaction time. An additional priming coat of CapaGrund Universal must be applied. The traces cannot occur when the material is applied under suitable climatic conditions.

Touching up surfaces is depending on many parameters and may be visible after drying. (In Germany: BFS Data Sheet No. 25) The use of phenol-based disinfectants may cause surface yellowing.

Advice

German Certificates	■ Amphibolin E.L.F. Permeability to carbon dioxide ■ Amphibolin E.L.F. Luminosity ■ Amphibolin E.L.F. Resistance to disinfectants
Please Note (Status as at Date of Publication)	Keep out of reach from children. Use P2 dust filter for grinding. Ensure good ventilation during use and drying. Do not eat, drink or smoke while using the paint. In case of contact with eyes or skin, immediately and thoroughly rinse with water. Do not allow product to enter drains, waterways or soil. Clean utensils immediately after use with soap and water. Further information: See Material Safety Data Sheet (MSDS).
Disposal	Materials and all related packaging must be disposed of in a safe way in accordance with the full requirements of the local authorities. Particular attention should be made to re-moving wastage from site in compliance with standard construction site procedures. In Germany: Only completely emptied containers must be given for recycling. Dispose containers with residues of liquid product via waste collection point accepting old paints and enamels. Dispose dried/ hardened product residues as construction site/demolition/municipal or domestic waste.
EU limit value for the VOC content	of this product (category A/c): max. 40 g/l (2010). This product contains max. 1 g/l VOC.
Product Code Paints and Enamels	M-DF01
Substances of Content - Declaration	Acrylic resin dispersion, titanium dioxide, silicates, water, additives, preservative
Technical Assistance	As it is impossible to list herein the wide variety of substrates and their specific problems, please request our technical assistance in case of queries. We will describe appropriate working methods, if a substrate not specified above is to be coated.
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